

Tsuguo HONGO*: Notes on Japanese larger fungi (21)**

本郷次雄*: 日本産きのこ類の研究 (21)**

In the present paper six species and one variety or seven taxa of the Agaricales are dealt with. They have been collected in various regions of Honshu by the writer himself as well as by other persons during the past twenty years. Six of them, *Tricholoma bakamatsutake*, *Cystoderma neoamianthinum*, *Galerina fasciculata*, *Rhodophyllus kansaiensis*, *Suillus viscidipes*, and *Boletus griseus* var. *fuscus* are new to science. *Baeospora myriadohylla* is recorded for the first time to the Japanese fungous flora. The most interesting of the new taxa is perhaps *T. bakamatsutake*, which has the general appearance of *T. matsutake* and a strong *matsutake*-like smell but grows in broad-leaved forests. *G. fasciculata* is a deadly poisonous species, and one must be careful for its identification.

In the following account, color names within quotation marks are taken from Ridgway (1912), and color notations in parentheses, e. g. (4A5), from Kornerup and Wanscher (1966). The collection numbers cited are the writer's. The specimens are all deposited in his herbarium.

135) ***Tricholoma bakamatsutake*** Hongo sp. nov. (Fig. 1)

A *T. matsutake* differt carpophoris minoribus, cheilocystidiis subcylindricis, ventricosis vel lageniformibus praesentibus nec non habitatione. Pileo 4-10 cm lato, castaneo in centro, subcremeo ad marginem, fibrilloso-subsquamoso; stipite 6-10 cm longo, 12-16 mm crasso, aequali vel basi incrassato, supra annulum albo squamulosoque, infra annulum fibrilloso-castaneo-squamulosoque; carne alba, odore fortissimo; sporis 5.5-7 × 4.5-5.5 μ, subglobosis vel late ellipsoideis; cheilocystidiis 22-31 × 4.5-9.5 μ. In quercetis.

Pileus 4-10 cm broad, hemispherical to convex, then expanded and broadly umbonate, surface not viscid, chestnut brown in the center, paler (near "cream-buff") toward the margin, appressed-fibrillose, often becoming

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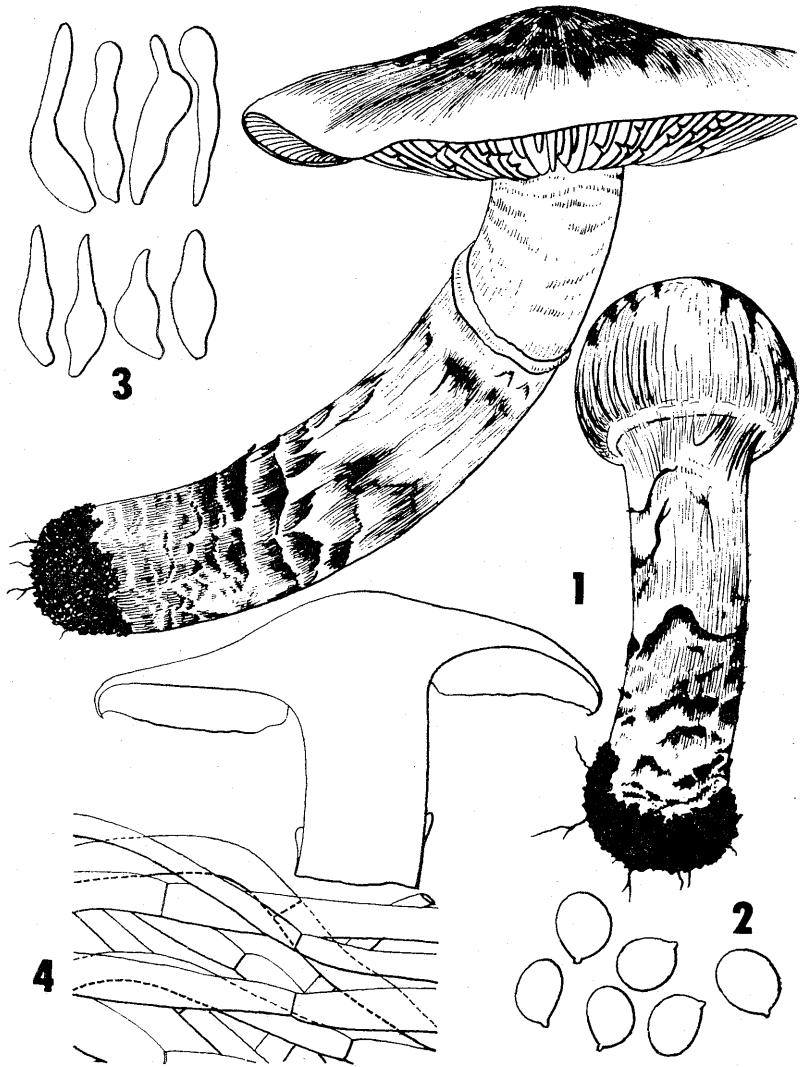


Fig. 1. *Tricholoma bakamatsutake* Hongo: 1, carpophores; 2, spores; 3, cheilocystidia; 4, cuticular hyphae. (1 \times 1; 2 \times 1500; 3 \times 900; 4 \times 600)

broken up into rather indistinct scales, especially near the center; margin whitish, cottony, incurved when young. Flesh thick at the disc, abruptly thin toward the margin, firm, white; taste mild, odor pleasant, very strong (somewhat stronger than that of *T. matsutake*). Lamellae adnexed, then separating, pale creameous, often stained with reddish brown, 5-8 mm broad, close, often splitting. Stipe 6-10 cm long, 12-16 mm thick, equal or enlarged at the base, white and squamulose above the annulus, fibrillose and with large or small, dark chestnut brown scales below the ring, solid. Annulus white or pale alutaceous, fibrillose-membranous, superior, persistent. Spores forming a white mass, hyaline under the microscope, $5.5-7 \times 4.5-5.5 \mu$, subglobose or broadly ellipsoid, smooth, nonamyloid; basidia 4-spored, $21-24 \times 5-7.5 \mu$; cheilocystidia numerous, $22-31 \times 4.5-9.5 \mu$, subcylindric, ventricose or flask-shaped, thin-walled, hyaline; gill-trama of subparallel hyphae; cuticle composed of interwoven, fulvous to brownish, $3.5-13.5 \mu$ broad hyphae; clamp connections absent.

Hab. In forests of *Quercus serrata*, *Q. mongolica* var. *grosse-serrata* etc., Ishidasaka, Goshogawara-city, Aomori-pref., Sept. 15, 1969 (no. 4010, coll. K. Yokoyama); Sôma-mura, Aomori-pref., Sept. 11, 1973 (no. 4947, coll. D. Narita-type): in forest of *Q. serrata*, Umeda, Mizuho-chô, Kyoto-pref., Sept. 27, 1955 (no. 1283, coll. M. Hamada).

Distr. Japan (Honshu).

Probably widespread at least in Honshu. Edible. The specific epithet, *bakamatsutake* is derived from a dialect of this fungus in Tsugaru region of Aomori-prefecture and means "foolish pine-mushroom". It closely resembles *T. matsutake* (S. Ito et Imai) Sing. in coloration, general appearance, peculiar smell, spore size, etc., but differs in its somewhat smaller carpophores, the presence of cheilocystidia and in growing in oak forests. *T. fulvocastaneum* Hongo is also a very similar species in broad-leaved forests, which lacks the *matsutake*-like smell and has a tapered base.

136) **Baeospora myriadophylla** (Peck) Sing. Schw. Zeitsch. Pilzk. 17: 73, 1939; Hongo, Rept. Tottori Mycol. Inst. 10: 354, 1973—*Collybia lilacea* Qué1. Champ. Jura Vosg. III^e, 434, 1875—*C. teleoianthina* Métrod, Rev. Myc. 2: 163, 1937. (Fig. 2-1~3)

Spores hyaline under the microscope, $3-4 \times 2-2.5 \mu$, ellipsoid, smooth, amyloid; basidia 4-spored, $16 \times 4.5 \mu$; cheilo- and pleurocystidia $23-35 \times 6-8 \mu$,

narrowly fusoid or fusoid-ventricose, hyaline, thin-walled.

Hab. On fallen trunks or old stumps in the forests of *Fagus* mixed with *Abies*, Mt. Tanzawa, Kanagawa-pref., Oct. 2, 1970 (no. 4263); Mt. Ôdaigahara, Nara-pref., Aug. 3, 1972 (no. 4695, coll. S. Yoshimi) and Aug. 27, 1973 (no. 4896, coll. H. Umata).

Distr. Europe, North America, New Guinea. New to Japan (Nara, Kanagawa).

III. Quél., l. c. pl. 1, fig. 1 (sub nom. *lilacea*)—Josser., Bull. Soc. Myc. Fr. 53: 178, fig. 2—Métrod, l. c. 167 & pl. 2, fig. 5 (sub nom. *teleoianthina*)—Hongo, l. c. fig. 11.

This little fungus is easily recognizable by its lignicolous habitat, the very crowded lilac gills, and by the small amyloid spores. It is probably widespread in mountainous regions of Japan. The writer collected this species near forest line of Mt. Wilhelm (ca. 3600 m alt.), Papua-New Guinea in 1971.

137) *Cystoderma neoamianthinum* Hongo sp. nov. (Fig. 2-4~6)

Pileo 1.3-4 cm lato, convexo dein plano, margine primum involuta, sicco, granuloso-squamuloso, e flavo ochraceo (4A5~4A8); carne medio moderate crassa, in margine tenui, albida, fracta pilei leviter flavescente, odore grato, sapore miti; lamellis rotundato-adnexis, confertis, albis, 3-5 mm latis; stipite 2-6 cm longo, 3-7 mm crasso, aequali vel sursum attenuato, supra annulum pallide flavido pruinosoque, infra annulum vestimento granuloso pileo concolori oblecto, solido; annulo angusto, concolori, granuloso, fugaci; sporis sub microscopio hyalinis, 3.5-4×2.5-3 μ , subglobosis vel late ellipsoideis, laevibus, amyloideis; basidiis tetrasporis, 14-19×4-4.5 μ ; pleurocystidiis cheilocystidiisque nullis; textura tramali lamellarum regulari; cellulis cuticulae 13-40×7-20 μ , subglobosis, ellipsoideis, subpiriformibus vel subcylindricis, pallide ferrugineo-cinnamomeis vel fulvis KOH ope; hyphis fibulatis.

Hab. On fallen trunks of *Fagus crenata*, etc., Sakanotani national forest, Haga-chô, Hyogo-pref., Oct. 23, 1972 (no. 4794); Mt. Ôdaigahara, Nara-pref., Aug. 28, 1973 (no. 4902-type).

Distr. Japan (Hyogo, Nara).

Differs from *C. amianthinum* (Fr.) Fayod in the lignicolous habitat and the smaller spores, and from *C. granosum* (Morg.) Sm. et Sing. in the fugacious ring and the absence of cheilocystidia.

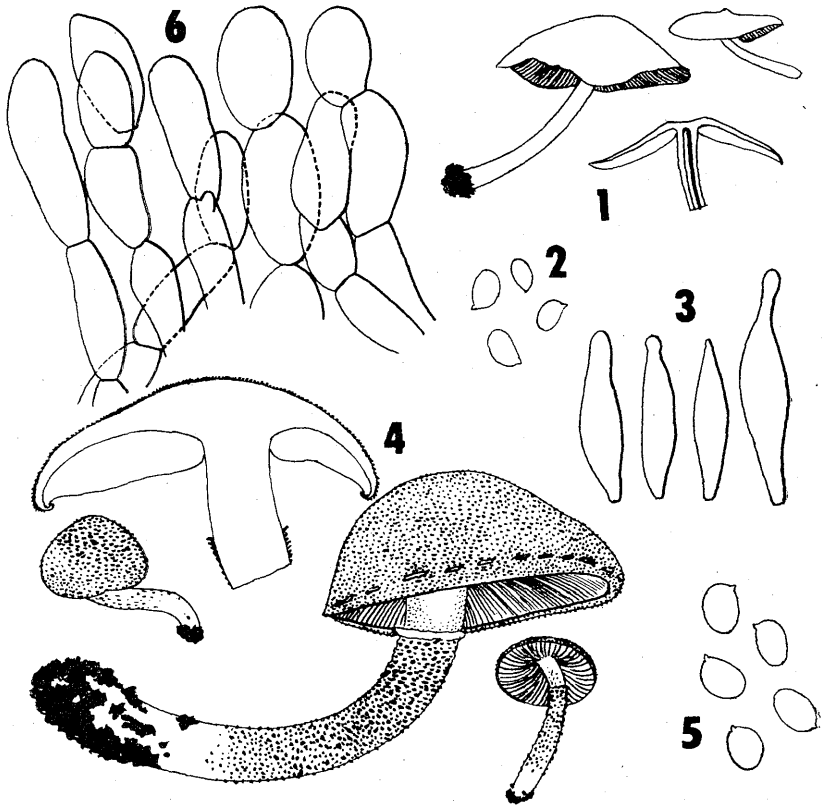


Fig. 2. 1-3, *Baeospora myriadophylla* (Peck) Sing.: 1, carpophores; 2, spores; 3, cheilo- and pleurocystidia. 4-6, *Cystoderma neoamianthinum* Hongo: 4, carpophores; 5, spores; 6, cuticular cells. (1, 4 $\times 1$; 2, 5 $\times 1500$; 3, 6 $\times 900$)

138) *Galerina fasciculata* Hongo sp. nov. (Fig. 3-1~4)

Pileo 2-3 cm lato, convexo, deinde expanso, obtuse mammoso, vel interdum leviter depresso, glabro, non viscido, subcinnameo ("sayal brown"), hygrophano, leviter striatulo, sicco pallescente ("light buff"), margine primum incurvata; carne medio moderate crassa, in margine tenui, superficiei subconcolori, subfragili, sapore subfarinaceo; lamellis adnato-subdecurrentibus, confertis vel subdistantibus, e pallidis fulvo-cinnameis ("ochraceous-tawny"), acie minute fimbriata; stipite 6-9 cm longo, 2.5-4

mm crasso, aequali vel ad basim subincrassato (basi 4-6 mm), sericeo-fibrilloso, apice pruinoso, interdum compresso, pallide argillaceo (e "warm buff", "cinnamon-buff") vel deorsum brunnescente, cavo, basi albo-tomentoso; velo tenui, membranaceo, pallide alutaceo, supero, saepe evanescente; sporis sub microscopio ferrugineo-fulvis, $6.5-8(8.5) \times 4-5\mu$, ovatis vel ellipsoideis, ruguloso-verrucosis, disco levi suprahilari praeditis; basidiis tetrasporis, $18-23 \times 6-7.5\mu$; pleurocystidiis nullis; cheilocystidiis numerosis, $20-40 \times 5.5-9.5\mu$, capitato-lageniformibus, capitulo $3-4\mu$ diam., hyalinis; tramate hymenophorali ex hyphis subparallelis, $2.5-15\mu$ latis consistente; epicute pilei ex hyphis filamentosis, $3-5\mu$ latis consistente; hyphis omnibus fibulatis.

Hab. Cespitose on rotting stump of *Ginkgo biloba*, Horikawa, Kyoto-city, Nov. 6, 1973 (no. 5056, coll. H. Okabe-type).

Distr. Japan (Saitama, Tokyo, Nagano, Ishikawa, Kyoto).

This is a dangerous poisonous species which has often caused deaths, and at least four cases of the poisoning have been known in Japan for the past fifteen years. It might be confused with *G. marginata* (Fr.) Kühn. and *Kuehneromyces mutabilis* (Fr.) Sing. et Sm. But the smaller spores and the lack of pleurocystidia should distinguish it from *G. marginata*, and the not scaly but silky-fibrillose stem and the rough spores separate it from *K. mutabilis*. *G. autumnalis* (Peck) Sm. et Sing., a North American deadly poisonous species, is similar in both shape and color, but is distinguished by its viscid cap, somewhat larger spores and the presence of pleurocystidia. *G. venenata* Sm. is another fatally poisonous species with pleurocystidia, and grows on lawn rather than on logs, stumps, etc.

139) **Rhodophyllus kansaiensis** Hongo sp. nov. (Fig. 3-5 & 6)

Pileo 5-6.5 cm lato, e campanulato convexo, deinde expanso, obtuse mammoso, minute tomentosovelutinoso vel squamuloso, praesertim in medio, radiatim \pm rugoso, griseo vel olivaceo-luteo ("olive-buff"), disco purpureo-griseo vel fuligineo-olivaceo ("clove brown"); carne tenui, alba, sapore miti, odore farinaceo; lamellis sinuatis vel liberis, subdistantibus vel subconfertis, luteis ("buff-yellow" vel "maize yellow"), deinde carneis, 6-8 mm latis, acie leviter erosa; stipite 6-11 cm longo, 6-12 mm crasso, subventricosovel subclavato, basi saepe radicato, fibrilloso-striato, pallide purpureo-griseo, apice flavido, solido vel farcto; sporis in cumulo carneis, sub microscopio pallide stramineis, $7.5-8.5 \times 6.5-7.5\mu$, globosis vel subglobosis, 5-7 angulis;

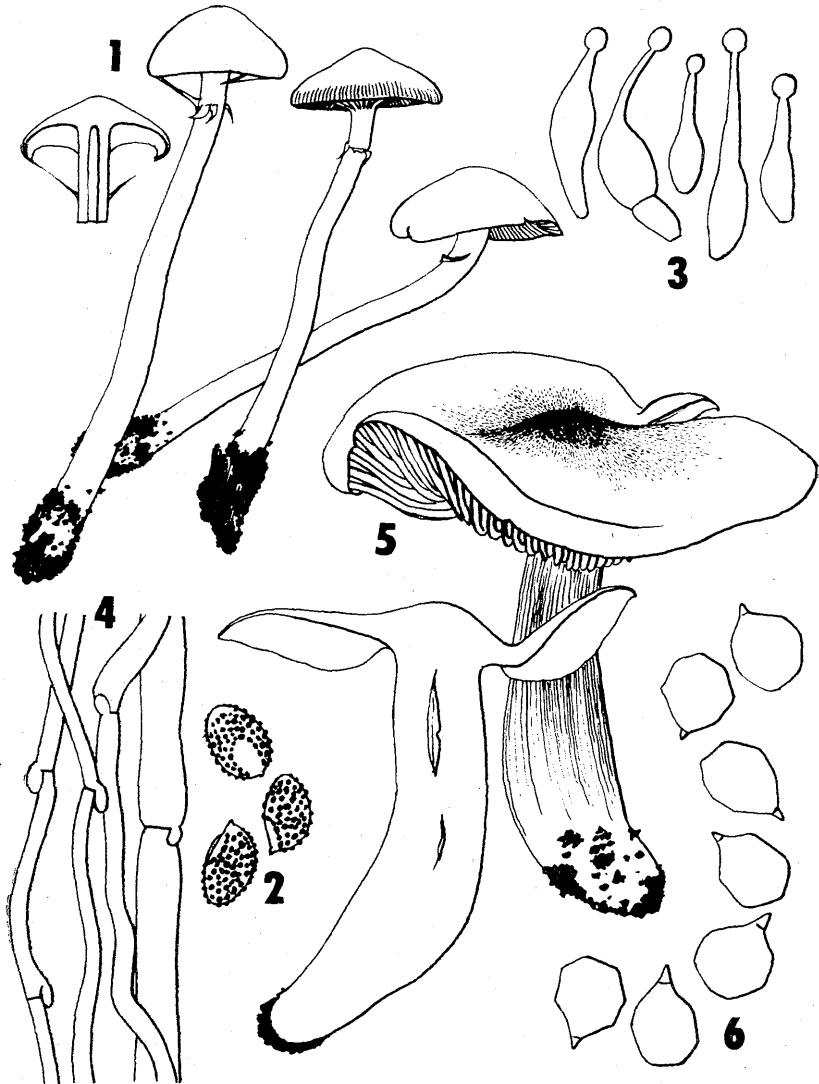


Fig. 3. 1-4, *Galerina fasciculata* Hongo: 1, carpophores; 2, spores; 3, cheilocystidia; 4, hyphae from gill-trama. 5-6, *Rhodophyllus kansaiensis* Hongo: 5, carpophores; 6, spores. (1, 5 \times 1; 2, 6 \times 1500; 3 \times 900; 4 \times 600)

basidiis tetrasporis, $23-31 \times 9.5-12 \mu$; cystidiis nullis; tramate hymenophorali ex hyphis subparallelis consistente; hyphis fibulatis.

Hab. On the ground in forests of *Pinus densiflora*, mixed with *Quercus serrata*, etc., Ishiyama-Senjô, Ôtsu-city, Sept. 8, 1968 (no. 3728, coll. Mrs. Y. Shidei); Ishiyama-Terabe, Ôtsu-city, Sept. 11, 1973 (no. 4945, coll. K. Yokoyama-type).

Distr. Japan (Shiga, Kyoto).

Characterized by the purplish gray tinge of the cap and stem and the light yellow gills. It somewhat resembles violaceous or bluish species such as *R. madidus* (Fr.) Quél., *R. nitidus* Quél., etc., but is clearly distinguished from them by the color of the gills.

140) **Suillus viscidipes** Hongo sp. nov. (Fig. 4-1~3)

Pileo 1.5-3 cm lato, hemisphaerico, dein convexo-plano, glutinoso, subcinnamomeo (6D6~6D8), ad marginem pallidiore, glabro, primitus ruguloso, margine primum incurvata; carne tenui, pallide flavida, immutabili, odore nullo, sapore miti; tubulis depressis, flavidis, dein olivaceis (2C5), 5-6 mm longis; poris concoloribus, angularibus, 0.5-1 mm latis, immutabilis; stipite 3-5 cm longo, 3-4 mm crasso, aequali vel deorsum attenuato, flexuoso, glutinoso, pallide carneo vel pallide alutaceo, solido, subannulato; annulo-membranaceo, albo, glutinoso, evanescenti; sporis sub microscopio brunneolomelleis, $10-15.5(17) \times 4-5(5.3) \mu$, subfusoides, laevis; basidiis tetrasporis; cystidiis numerosis, praecipue ad poros, $23-38 \times 8.5-15.5 \mu$, clavatis vel subventricosis, hyalinis, tenui-tunicatis; tramate hymenophorali laterali typi *Boletorum*; hyphis omnibus haud fibuligeris.

Hab. Scattered on the ground under pines and oaks, Ishiyama-Senjô, Ôtsu, Sept. 10, 1973 (no. 4943-type).

Distr. Japan (Saitama, Shiga).

Not so common. The mucilaginous veil which covers the cap and stem as well as the membranous ring reminds one of small *Boletellus longicollis* (Ces.), but its smooth boletoid spores definitely distinguish it from that species. It seems to the writer that this fungus shows an intermediate form between *Boletellus* sect. *Ixocephali* and *Suillus*, and it may be close to such ancestral forms of *Suillus* as Corner (1972) thinks, though its mycorrhizal relationships with conifers are not yet ascertained.

141) **Boletus griseus** Frost apud Peck var. **fuscus** Hongo var. nov. (Fig.

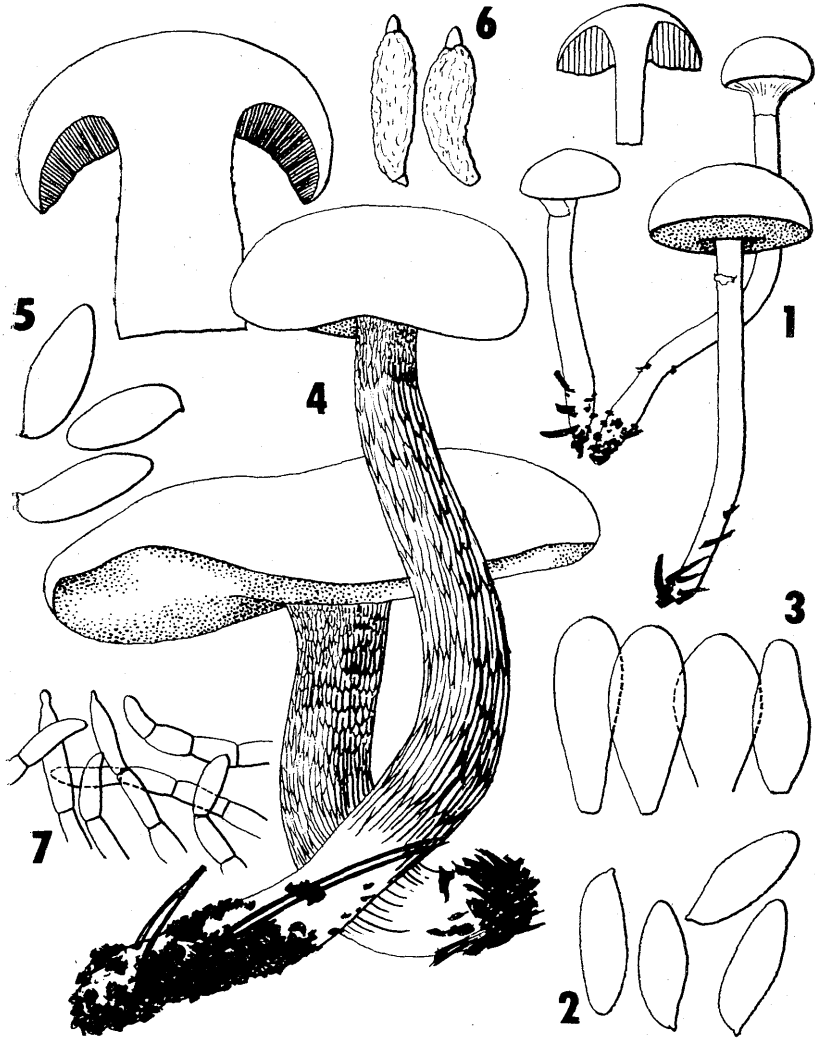


Fig. 4. 1-3, *Suillus viscidipes* Hongo: 1, carpophores; 2, spores; 3, cystidia. 4-7, *Boletus griseus* Frost var. *fuscus* Hongo: 4, carpophores; 5, spores; 6, cheilocystidia; 7, cuticle. (1, 4 \times 1; 2, 5 \times 1500; 3, 6 \times 900; 7 \times 600)

4-4~7)

Pileo 4.5-8 cm lato, convexo, dein expanso, subtomentoso, e fusco olivaceo-brunneo; carne crassa, albida, fracta \pm rubescenti, in stipite basi flavida; tubulis adnatis vel subdepressis, albidis, dein argillaceo-brunneis, fractis brunnescentibus; poris parvis, concoloribus; stipite 5-13 cm longo, 7-20 mm, crasso, subaequali vel subventricoso, basi radicato, saepe curvo, pileo concolore vel subavellaneo, fusco-reticulato, ad basim saepe flavido; sporis 12-16 \times 4-5.5 μ .

Pileus 4.5-8 cm broad, convex, then expanded, with a narrowly projecting sterile margin, slightly viscid when wet, finely subtomentose, "hair brown" to "fuscous" when young, becoming "olive-brown", "buffy brown", "Saccardo's umber" or "mummy brown" on maturing. Flesh thick, whitish in the pileus and the upper portion of the stipe, slightly reddening when bruised, in the lower portion of the stipe yellowish; taste mild, odor slight. Tubes adnate or slightly depressed around the stipe, 4-11 mm long, whitish when young, becoming sordid clay-brownish when mature, staining brownish in injury; pores small, 0.3-1 mm in diam., angular, concolorous with the tubes. Stipe 5-13 cm long, 7-20 mm thick, subequal or subventricose, with somewhat rooting base, often curved, concolorous with the pileus or avellaneous, with darker reticulation, paler at apex, often yellowish downward, solid; mycelium white. Spores pale brownish melleous under the microscope, 11-16 \times 4-5.5 μ , cylindric-fusoid, smooth, with or without a suprahilar depression; basidia four-spored; cheilo- and pleurocystidia numerous, 23-41 \times 7-12 μ , narrowly fusoid, melleous brown from a resinous incrustation; tube trama truly bilateral of the *Boletus*-type; cuticle of pileus a trichodermium of hyphae 3.5-7.5 μ or more thick, with dark umbrinous content; all hyphae without clamp connections.

Hab. In forests of *Pinus densiflora* mixed with *Quercus serrata*, *Q. glauca*, etc., Tanakami-Ishizue, Ôtsu-city, Sept. 9, 1958 (no. 1853); Ishiyama-Terabe, Ôtsu-city, Sept. 7, 1962 (no. 2036), Aug. 26, 1966 (no. 3287-type), Sept. 5, 1967 (no. 3471), Sept. 15, 1969 (no. 4006); Kamidanakami-Shibahara, Ôtsu-city, July 23, 1966 (no. 3259), Sept. 1, 1973 (no. 4915).

Distr. Japan (Honshu).

This variety differs from var. *griseus* in darker color, somewhat rubescent flesh and larger spores, and from var. *pini-caribaeae* (=ssp. *pini-*

caribaeae Sing.) in smaller size and slightly reddening flesh. Rather common in western Japan from summer to early autumn.

Literature cited

Corner, E. J. H., 1972. *Boletus* in Malaysia. Singapore. Kornerup, A. & Wanscher, J. H., 1967. Methuen handbook of colour, 2nd. ed. London. Ridgway, R., 1912. Color standards and color nomenclature. Washington, D. C.

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本報告においては日本産ハラタケ目にぞくする菌類 6 種 1 変種を取り扱った。

135) **バカマツタケ** (新種)。マツタケ *T. matsutake* (S. Ito et Imai) Sing. にきわめて近縁の種類であるが、コナラ・ミズナラなどの広葉樹林にはえ、やや小形である。青森県五所川原市石田坂(横山和正氏)、同県弘前市郊外相馬村(成田伝蔵氏)で採集。和名は津軽地方の方言からとった。なお京都府船井郡瑞穂町付近でニタリと呼ばれているものも同種とみなされる。少なくとも本州にはかなり広く分布するものと思われる。

136) **フジイロアマタケ** (新称)。小形のきのこでモミなどの枯れ木にはえ、ひだはフジ色で幅狭くきわめて密生している。神奈川県丹沢山、奈良県大台が原山などで採集。1971~72年のニューギニア菌類調査のさい、ウィルヘルム山の森林限界付近でもこれを採集した。

137) **シワカラカサモドキ** (新種)。シワカラカサタケ *C. amianthinum* (Fr.) Fayod に似ているが、樹上生であることと、胞子が小形なこととで区別される。また北米産の *C. granosum* (Morg.) Sm. et Sing. とは完全なつばをつくらぬ点、側シスチジアを欠く点などで区別される。兵庫県氷ノ山中腹、坂ノ谷国有林および奈良県大台が原山で採集。

138) **ドクアジロガサ** (新種)。かなり毒性が強く猛毒菌ともいうべきもので、過去 15 年間に少なくとも 4 回の中毒例があり、3 人の死者を出している。枯れ木に多数がむらがってはえ、ヒメアジロガサ *G. marginata* (Fr.) Kühn. やセンボンイチメガサ *Kuehneromyces mutabilis* (Fr.) Sing. et Sm. とまぎらわしいが、前者とは胞子が小形で側シスチジアを欠くことで、また後者とは茎にりん片がなく胞子が粗面なこととで区別される。北米にも近縁の 2 種の毒菌が知られている。京都市堀川で岡部宏秋氏採集。和名は今関によって与えられた。

139) **キヒダイッポンシメジ** (新種)。かさとは茎とは紫灰色をおび、ひだは黄色である。大津市石山千町、同市石山寺辺町のアカマツコナラ林で採集。

140) ヒメヌメリイグチ (新種)。小形で茎は細長く、かさ・茎ともに粘液におおわれ、粘膜質早落性のつばがある。外観は *Boletellus longicollis* (Ces.) の小形のものに酷似するが、胞子の形態が全くちがう。キクバナイグチ属 *Boletellus* の *Ixocephali* 節とヌメリイグチ属 *Suillus* との中間型ともみられ、Corner に従えば、ヌメリイグチ属の祖先型に近いもののように思われる。大津市石山千町のアカマツ—コナラ林で採集。青木実氏によれば、埼玉県所沢市にも産するという。和名は同氏の命名である。

141) オオミ (大実) ノクロアワタケ (新変種)。クロアワタケ *B. griseus* Frost var. *griseus* に比して黒味が強く、肉はやや紅変し、胞子は大形である。大津市内諸所のコナラ・アラカシなどをまじえたアカマツ林内で採集。夏から秋にかけて、西日本でふつうにみられる。

○北海道第四紀産ツガ材 (西田 誠) Makoto NISHIDA: Occurrence of *Tsuga* sp. from the Pleistocene of Hokkaido

北海道理科センター (札幌市) の佐々木太一氏から、広尾郡広尾町の郊外、楽古川の段丘に発達するピラオトリ層から産出した植物遺体の同定を依頼された。その多くはイネ科またはスゲ科と思われる草本の根であったが、中に1点、長さ15 cm、直径1.5 cm ほどの小枝があった。それを鏡検したところ、ツガ属の枝であることがわかった。すなわち、材は仮道管、放射組織および点在する木部柔組織からなり、さらにしばし

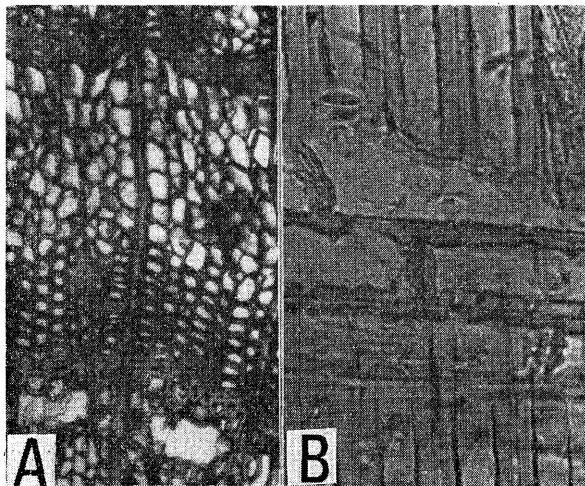


Fig. 1. Cross (A) and radial (B) sections of *Tsuga* sp. from the Pleistocene of Hokkaido. Traumatic resin canals are seen in A. Ray tracheid and simple pits on horizontal walls of ray cells are exhibited in B.